

Applicant : Joseph S. Stam et al.
Appln. No. : 10/783,131
Page : 15

REMARKS

In the Office Action of November 22, 2005, the Examiner indicates, and the Applicant acknowledges, that claims 1-73 are currently pending. The Applicants wish to express appreciation for the timeliness of the Official Office Action. The Applicants wish to thank the Examiner for the early indication of allowability of subject matter contained in claims 34, 35, 60-62, 64-67, and 69-73. The Applicants also wish to thank the Examiner for his courtesy during a personal interview held with Applicants' representative Mr. James E. Shultz Jr. on February 7, 2006; the substance of this interview is memorialized herein. Claims 40 and 58 have been amended to more clearly define the invention and to correct errors pointed out by the Examiner during the personal interview. Therefore, each scope of each claim and claim limitation shall be construed as including all equivalent structure and function within the doctrine of equivalents.

Turning to paragraph 3 of the Office Action, the Examiner has objected to Figs. 4, 7a, 7e, 8a, 9a-9i and 10 for lack of having descriptive legends. Although the Applicants respectfully disagree, replacement sheets are included with this paper addressing the issues raised by the Examiner. Therefore, the Applicants request that this objection be removed.

Turning to paragraph 4 of the Office Action the Examiner has objected to the abstract of the disclosure because it fails to adequately describe the invention. Although the Applicants respectfully disagree, an amended abstract is included in this paper

Applicant : Joseph S. Stam et al.
Appn. No. : 10/783,131
Page : 16

addressing the issues raised by the Examiner. Therefore, the Applicants request that this objection be removed.

As discussed during the personal interview, neither U.S. Patent 6,515,271, to Shimizu, or WO 99/55082, to Conexant, teach suggest or imply an automatic vehicle equipment control system, let alone, a system that generates at least one vehicle equipment control. None of the references of record teach suggest or imply a dual port memory or an imager board interconnection capable of operating up to one megabaud.

As stated in MPEP §2131:

"A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference." Verdegall Bros. v. Union Oil Co. of California, 814 F.2d 628, 631, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987). "The identical invention must be shown in as complete detail as is contained in the claim." Richardson v. Suzuki Motor Co., 868 F.2d 1226, 1236, 9 USPQ2d 1913, 1920 (Fed. Cir. 1989).

Turning to paragraph 5 of the Office Action the Examiner has rejected claims 1-15, 18, 19, 24-29, 36, 37, 40-45, 48, 49, 54-59 and 68 under 35 U.S.C. §102(e) as being anticipated by U.S. Patent 6,515,271, to Shimizu. The Applicants respectfully submit that Shimizu does not teach or suggest an automatic vehicle equipment control system, comprising: at least one imager comprising at least one image sensor and at least one other component selected from the group comprising: at least one temperature sensor, at least one control output and at least one low voltage differential

Applicant : Joseph S. Stam et al.
Appln. No. : 10/783,131
Page : 17

signal transceiver; at least one enhanced transceiver; and at least one interconnection between said at least one imager and said at least one enhanced transceiver, wherein at least one vehicle equipment control signal is generated as a function of at least a portion of at least one image as recited in claim 1. In that claims 2-13 depend from claim 1, the Applicants respectfully submit that claims 1-13 are in condition for allowance over Shimizu.

The Applicants further submit that Shimizu does not teach or suggest an automatic vehicle equipment control system, comprising: an imager comprising an image sensor and at least one other component selected from the group comprising: at least one control output and at least one low voltage differential signal transceiver, wherein at least one vehicle equipment control signal is generated as a function of at least a portion of at least one image as recited in claim 14. In that claims 15, 18, 19 and 24-27 depend from claim 14, the Applicants respectfully submit that claims 14, 15, 18, 19 and 24-27 are in condition for allowance over Shimizu.

The Applicants further submit that Shimizu does not teach or suggest an automatic vehicle equipment control system, comprising: an imager comprising an imager, comprising: an image sensor and at least one other component selected from the group comprising: at least one control output and at least one low voltage differential signal transceiver, wherein said image sensor and said at least one other component are formed on a common silicon wafer, wherein at least one vehicle equipment control signal is generated as a function of at least a portion of at least one image as recited in claim 28. In that claim 29 depends from claim 28, the Applicants respectfully submit that

Applicant : Joseph S. Stam et al.
Appln. No. : 10/783,131
Page : 18

claims 28 and 29 are in condition for allowance over Shimizu.

The Applicants further submit that Shimizu does not teach or suggest an automatic vehicle equipment control system, comprising: an enhanced transceiver, comprising: at least one low voltage differential signal transceiver and at least one memory formed on a common silicon wafer configured to communicate with an imager, wherein at least one vehicle equipment control signal is generated as a function of at least a portion of at least one image as recited in claim 36. In that claim 37 depends from claim 36, the Applicants respectfully submit that claims 36 and 37 are in condition for allowance over Shimizu.

The Applicants further submit that Shimizu does not teach or suggest an imager board interconnection, comprising: at least one low voltage differential signal transceiver defining at least a portion of the imager board interconnection, wherein the imager board interconnection is configured to operate up to at least one megabaud without emitting unacceptable electromagnetic interference as recited in claim 40. In that claim 41 depends from claim 40, the Applicants respectfully submit that claims 40 and 41 are in condition for allowance over Shimizu.

The Applicants further submit that Shimizu does not teach or suggest an automatic vehicle equipment control system, comprising: an enhanced transceiver comprising at least one low voltage differential signal transceiver and at least one memory configured to communicate with an imager, wherein at least one vehicle equipment control signal is generated as a function of at least a portion of at least one image as recited in claim 42. In that claims 43-45, 48, 49 and 54-57 depend from claim

Applicant : Joseph S. Stam et al.
Appln. No. : 10/783,131
Page : 19

42, the Applicants respectfully submit that claims 42-45, 48, 49 and 54-57 are in condition for allowance over Shimizu.

The Applicants further submit that Shimizu does not teach or suggest an automatic vehicle equipment control system, comprising: a vision system, comprising: at least one imager comprising at least one image sensor and at least one low voltage differential signal transceiver formed on a common silicon wafer; at least one processor; and at least one enhanced transceiver interconnected between said at least one imager and said at least one processor, said at least one enhanced transceiver comprising at least one dual port memory as recited in claim 58. In that claims 59 and 68 depend from claim 58, the Applicants respectfully submit that claims 58, 59 and 68 are in condition for allowance over Shimizu.

Turning to paragraph 6 of the Office Action the Examiner has rejected claims 28, 29 and 40 under 35 U.S.C. §102(b) as being anticipated by WO 99/55082, to Conexant. The Applicants respectfully submit that Conexant does not teach or suggest an automatic vehicle equipment control system, comprising: an imager comprising an imager, comprising: an image sensor and at least one other component selected from the group comprising: at least one control output and at least one low voltage differential signal transceiver, wherein said image sensor and said at least one other component are formed on a common silicon wafer, wherein at least one vehicle equipment control signal is generated as a function of at least a portion of at least one image as recited in claim 28. In that claim 29 depends from claim 28, the Applicants respectfully submit that claims 28 and 29 are in condition for allowance over Conexant.

Applicant : Joseph S. Stam et al.
Appln. No. : 10/783,131
Page : 20

The Applicants further submit that Conexant does not teach or suggest an imager board interconnection, comprising: at least one low voltage differential signal transceiver defining at least a portion of the imager board interconnection, wherein the imager board interconnection is configured to operate up to at least one megabaud without emitting unacceptable electromagnetic interference as recited in claim 40. Therefore, the Applicants respectfully submit that claim 40 is in condition for allowance over Conexant.

Turning to paragraph 7 of the Office Action the Examiner has further rejected claims 28 and 29 under 35 U.S.C. §102(b) as being anticipated by U.S. Patent 6,008,486, to Stam et al. The Applicants respectfully submit that Stam et al. does not teach or suggest an automatic vehicle equipment control system, comprising: an imager comprising an imager, comprising: an image sensor and at least one other component selected from the group comprising: at least one control output and at least one low voltage differential signal transceiver, wherein said image sensor and said at least one other component are formed on a common silicon wafer, wherein at least one vehicle equipment control signal is generated as a function of at least a portion of at least one image as recited in claim 28. In that claim 29 depends from claim 28, the Applicants respectfully submit that claims 28 and 29 are in condition for allowance over Stam et al.

Turning to paragraph 8 of the Office Action the Examiner has further rejected claims 14, 16-18, 20, 21 and 23 under 35 U.S.C. §102(e) as being anticipated by U.S. Patent 6,806,485, to Jackson Jr. The Applicants respectfully submit that Jackson Jr. does not teach or suggest an automatic vehicle equipment control system, comprising:

Applicant : Joseph S. Stam et al.
Appln. No. : 10/783,131
Page : 21

an imager comprising an image sensor and at least one other component selected from the group comprising: at least one control output and at least one low voltage differential signal transceiver, wherein at least one vehicle equipment control signal is generated as a function of at least a portion of at least one image as recited in claim 14. In that claims 16-18, 20, 21 and 23 depend from claim 14, the Applicants respectfully submit that claims 14, 16-18, 20, 21 and 23 are in condition for allowance over Jackson Jr.

Turning to paragraph 9 of the Office Action the Examiner has further rejected claims 28-31 under 35 U.S.C. §102(e) as being anticipated by U.S. Patent Publication 2003/0210334, to Sarwari. The Applicants respectfully submit that Sarwari does not teach or suggest an automatic vehicle equipment control system, comprising: an imager comprising an imager, comprising: an image sensor and at least one other component selected from the group comprising: at least one control output and at least one low voltage differential signal transceiver, wherein said image sensor and said at least one other component are formed on a common silicon wafer, wherein at least one vehicle equipment control signal is generated as a function of at least a portion of at least one image as recited in claim 28. In that claims 29-31 depends from claim 28, the Applicants respectfully submit that claims 28, 29-31 are in condition for allowance over Sarwari.

Turning to paragraph 10 of the Office Action the Examiner has further rejected claims 16, 17, 20-23, 31-33, 38, 39, 46, 47, 50-53 and 63 under 35 U.S.C. §103(a) as being unpatentable over Shimizu in view of U.S. Patent 5,796,094, to Schofield et al. In that claims 16, 17 and 20-23 depend from claim 14 and for at least the reasons expressed above the Applicants submit that claims 16, 17 and 20-23 are in condition for

Applicant : Joseph S. Stam et al.
Appln. No. : 10/783,131
Page : 22

allowance over Shimizu, Schofield et al., and the combination thereof. In that claims 31-33 depend from claim 28 and for at least the reasons expressed above the Applicants submit that claims 31-33 are in condition for allowance over Shimizu, Schofield et al., and the combination thereof. In that claims 38 and 39 depend from claim 36 and for at least the reasons expressed above the Applicants submit that claims 38 and 39 are in condition for allowance over Shimizu, Schofield et al., and the combination thereof. In that claims 46, 47 and 50-53 depend from claim 42 and for at least the reasons expressed above the Applicants submit that claims 46, 47 and 50-53 are in condition for allowance over Shimizu, Schofield et al., and the combination thereof. In that claim 63 depends from claim 58 and for at least the reasons expressed above the Applicants submit that claim 58 is in condition for allowance over Shimizu, Schofield et al., and the combination thereof.

Applicant : Joseph S. Stam et al.
Appn. No. : 10/783,131
Page : 23

In view of the foregoing remarks, Applicants submit that the present application is in condition for allowance over the art of record. The Applicants, therefore, request that the Examiner issue a notice of allowance. Please contact the undersigned should additional information be required.

Respectfully submitted,
JOSEPH S. STAM ET AL.
By: Gentex Corporation

March 22, 2006
Date

James E. Shultz Jr.
James E. Shultz Jr.
Registration No. 50,511
600 N. Centennial Street
Zeeland, Michigan 49464
616/772-1800